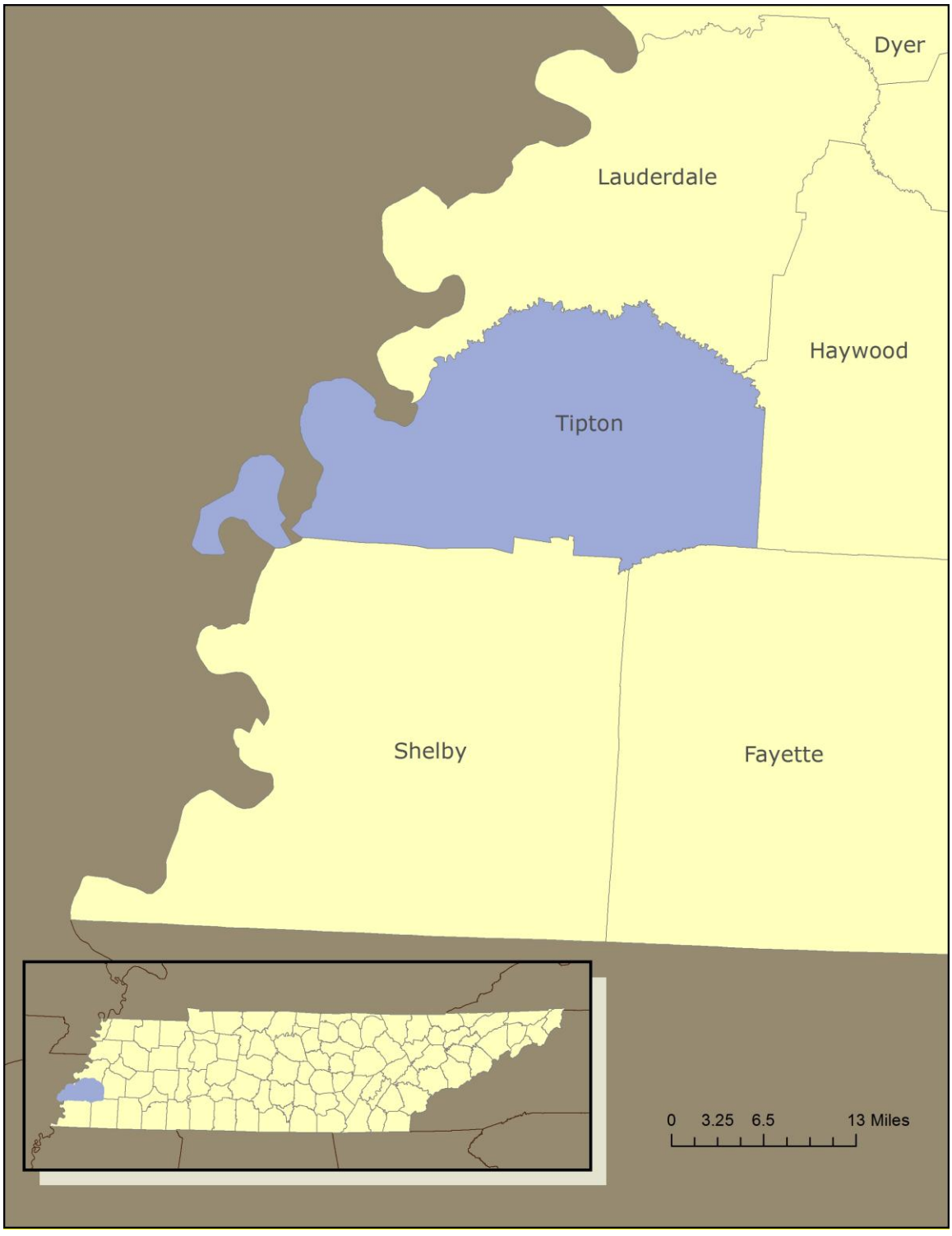
USDA-NRCS LiDAR/Elevation Project Summary

Project Sponsor: USDA - NRCS
Project Area: Tipton County, TN
Acquisition Dates: Fall 2012 and Spring 2013
Technical Summary:

Nominal Point Spacing – 0.7 meters
Vertical Accuracy – $RMSE_Z$ - 9.2 cm (Accuracyz = 0.18m at the 95% confidence level)
Horizontal Accuracy -Will meet or exceed 0.6 m RMSE (Accuracyr= 1.04 m at the 95% confidence level).
Vertical Datum: NAVD88, Geoid09, meters
Horizontal Datum: NAD83, (NSRS 2007)
Coordinate System: UTM Zone 16, meters
Tiling Scheme: 1000x1000 (National Grid) for point cloud and intensity images, USGS ¼ quads for Bare Earth DEM's.

Products:

- All LIDAR points classified (point cloud) with return number LAS format V 1.2.
- LAS point Classes as required above.
- Bare-Earth points in LAS format and DEM in ESRI Grid format (1 meter posts).
- Model Key points in LAS format.
- First and Last return points in LAS format.
- Tile index in shapefile format in the proper coordinate system. Bare earth quarter/quarter quads and LAS file in the US National Grid format (1000M x 1000M).
- Intensity image in geotiff format, 16 bit dataset (1 meter pixel).
- Survey control file in both ASCII and shapefile format, listing X,Y and Z coordinates. Survey report with control points monumented and referenced to provide recoverable control points. Digital pictures to also be provided for each control point surveyed.
- FGDC-compliant metadata (Project, with expanded narrative).
- RMSE error report in Microsoft excel format.
- ESRI Shapefile of flight lines as flown. Flight dates included in the attribute table.
- 3D ESRI Geodatabase of hydro breaklines collected.


Dyer
Lauderdale
Haywood
Tipton
Shelby
Fayette
0 3.25 6.5 13 Miles